

A NEW SPECIES OF *WALLERIA* (MYRSINACEAE) FROM HAITI¹

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ABSTRACT

A new species, *Wallenia formonensis*, is described from a disturbed cloud forest at 1520 m alt. on the southern slope of Morne Formon in the Massif de la Hotte of southern Haiti. The genus, *Wallenia*, of some 25 species, is, itself, endemic to the West Indies. The cloud forests and moist pine forests of the higher elevations of Morne Formon and adjacent M. Macaya are diverse and contain many local endemics. The flora of this area is known mainly through the field work of Erik L. Ekman, but is in need of additional botanical investigation.

The species described in this paper was discovered in the high elevations of Morne Formon in the Massif de la Hotte, southern Haiti. Field work formed part of an inventory of the flora and fauna of the recently established Pic Macaya National Park. The discovery of this species brings to eight the number of species of *Wallenia* recorded for Hispaniola (Barker and Dardeau 1930, Moscoso 1943, Liogier 1971). Two other species of *Wallenia* occur in Pic Macaya National Park: *W. aquifolia* Urb. & Ekm. and *W. ekmanii* Urb. Both species are endemic to the mountains of southern Haiti. Other Myrsinaceae occurring in the park include *Ardisia fuertesii* Urb., *Myrsine coriacea* (Sw.) R. Br. ex Roem. & Schult., and *Myrsine magnoliifolia* (Urb. & Ekm.) Alain.

Although the high elevation cloud forests and moist pinelands of the Massif de la Hotte were explored by Erik L. Ekman (Ekman 1928, Moscoso 1943, unpublished field notes of E. L. Ekman), the diverse and highly endemic flora of the region is in need of additional botanical exploration, as evidenced by the discovery of several "new" species, one of which is described herein.

WALLERIA formonensis W. Judd, sp. nov. (Figure 1)

Species haec ab *Wallenia jacquinioides* (Griseb.) Mez differt foliis parvioribus, i.e., ca 2.5–4.7 cm vs. 5–9.5 cm longis, et inflorescentiis plerumque brevioribus.

Tree to ca 10 m tall. Indumentum of multicellular, peltate, gland-

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headed hairs. Twigs roughened, glandular-punctate. Leaves alternate and pseudoverticillate; petiole 4–13 mm long, adaxially grooved, glandular-punctate; blade obovate, (1.6)2.5–4.7 cm long, (0.5)1–2.2 cm wide, coriaceous with ovoidal, brownish, resin-containing, secretory cavities in mesophyll, especially near margin, the apex truncate to rounded, the base attenuate, the margin entire, plane to revolute, especially along proximal portion of blade, the adaxial surface dull to slightly lustrous and obscurely glandular-punctate, the abaxial surface pale and conspicuously glandular-punctate, the venation brochidodromous, adaxially obscure, abaxially with secondary veins slightly raised and visible, the tertiary veins obscure, not raised-reticulate. Inflorescences axillary racemes or rarely scarcely branched panicles, the primary axis 2–4 cm long, glandular-punctate, bearing ca 13 to 30 flowers. Flowers imperfect (plants dioecious) but appearing perfect, 5-merous, each subtended by a more or less linear caducous bract to 3 mm long; only staminate flowers seen. Pedicels 2–4.5 mm long, glandular-punctate. Sepals 5, imbricate, widely ovate with rounded to obtuse apices and slightly erose, glandular-fimbriate margins, 1.3–1.7 mm long, 1.3–1.5 mm wide, sparsely glandular-punctate and with conspicuous red to brown ovoidal secretory cavities. Corolla broadly campanulate, white with conspicuous brownish ovoidal secretory cavities, the tube ca 1 mm long, the lobes 5, triangular/ovate with rounded apices, 1.3–2 mm long, 1.3–1.9 mm wide. Stamens 5, the filaments narrow, 3–4 mm long, the anthers ca 1 mm long with conspicuous dorsal cluster of reddish ovoidal secretory cavities. Pistillodium ca 1.7 mm long with ovoid, glabrous ovary tapering to short style; secretory cavities present. Pistillate flowers and drupes not seen.

TYPE: HAITI. DEPARTEMENT DU SUD: Massif de la Hotte, Pic Macaya National Park, disturbed cloud forest on southern slope of Morne Formon, ca 1520 m alt., north of community of Formon, occasional, 11 Jun 1984, *James D. Skeeun, Jr. 1524* (HOLOTYPE: FLAS; ISOTYPES: EHH, NY).

Wallenia formonensis is a member of *Wallenia* subgenus *Homowallenia* Mez, a group characterized by scarcely heteromorphic flowers that are borne on axillary racemose inflorescences (Mez 1901, 1902). The species is quite similar to the Oriente/Cuban taxon, *Wallenia jacquinioides* (Griseb.) Mez, and the two species are likely closely related. *Wallenia formonensis* differs from *W. jacquinioides* in its consistently smaller leaves (i.e., (1.6)2.5–4.7 by (0.5)1–2.2 cm vs. (3)5–9.5 by (0.8)1.5–3.2 cm in *W. jacquinioides*), shorter inflorescences (i.e., 2–4 cm vs. 3–6 cm in *W. jacquinioides*), and a tendency toward producing more flowers per inflorescence. The new species is also easily distinguished from the similar Dominican species, *W. apiculata* Urb. and *W. urbaniana* Mez, by its less

coriaceous leaves with obscurely reticulate higher-order venation, i.e., the tertiary and higher-order veins are not raised-reticulate. The calyx and corolla of the latter two species lack prominent red to brown ovoidal secretory cavities. *Wallenia formonensis* differs from the recently described *W. gracilis* Alain (Liogier 1971) in its blunt-tipped and only obscurely reticulate-veined leaves, inflorescences with several to many flowers, and corolla with rounded lobes.

The cloud forests and moist forests of *Pinus occidentalis* Sw. of the higher elevations (i.e., chiefly above 1300 m alt.) of the Massif de la Hotte are

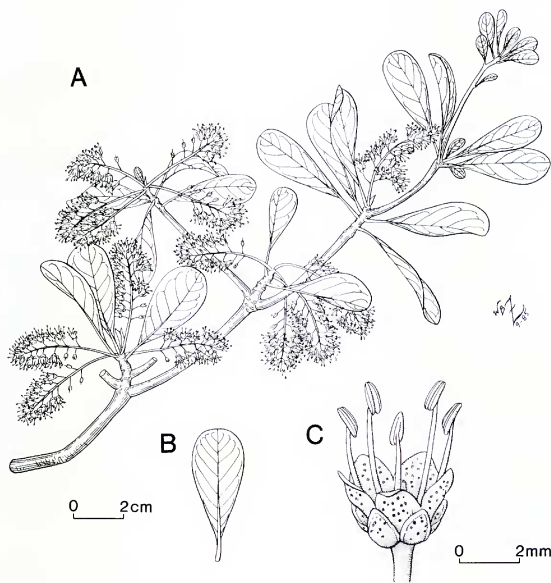


Figure 1. *Wallenia formonensis* W. Judd: A, habit; B, leaf; C, staminate flower. Drawn from the holotype.

floristically diverse and contain numerous endemics, e.g., ca 34% of the flowering plants of Pic Macaya National Park are endemic to Hispaniola (Judd unpublished data). Such forests in the Massif de la Hotte are now essentially limited to the upper slopes of Morne Formon and M. Macaya. Other trees and shrubs endemic to the Massif de la Hotte that recently have been collected by the author (or J. D. Skeeon) in Macaya National Park include: *Calyptanthus hotteana* Urb. & Ekm., *Cestrum filipes* Urb. & Ekm., *Cleyera ternstroemioides* (O. E. Schmidt) Kobuski, *Dendrophthora carnososa* Urb. & Ekm., *Eugenia formonica* Urb. & Ekm., *Eupatorium flavidulum* Urb. & Ekm., *E. urbanii* Ekm., *E. porphyrocladium* Urb. & Ekm., *Haenianthus oblongatus* Urb., *Mecranium microdictyum* Urb. & Ekm., *M. tricoctatum* Urb. & Ekm., *Meliosma abbreviata* Urb., *Meriania squamulosa* Urb. & Ekm., *Miconia apiculata* Urb. & Ekm., *M. barkeri* Urb. & Ekm., *M. hypiodes* Urb. & Ekm., *M. ossaeifolia* Urb. & Ekm., *Myrsine magnoliifolia* (Urb. & Ekm.) Alain, *Pachyanthus blancheanus* (Urb.) Urb., *Psychotria alpestris* Urb. & Ekm., *Rondeletia formonia* Urb. & Ekm., *Sapium haitiense* Urb., *Solanum formonense* O. E. Schulz, *S. hotteanum* Urb. & Ekm., *Stevensia hotteana* Urb. & Ekm., *Symplocos hotteana* Urb. & Ekm., *Ternstroemia barkeri* Ekm. & Schmidt, and *Wallenia aquifolia* Urb. & Ekm. The region also supports many endemics at lower elevations in the moist forest on limestone in the vicinity of Formon. Woody taxa occurring with this newly described species include *Besleria lutea* L., *Brunellia comocladifolia* Humb. & Bonpl. subsp. *domingensis* Cuatr., *Didymopanax tremulum* Krug & Urb., *Gomidesia lindeniana* Berg, *Gyrotaenia myriocarpa* Griseb., *Heterotrichum umbellatum* (Mill.) Urb., *Mecranium microdictyum* Urb. & Ekm., *Miconia subcompressa* Urb., *Myrsine coriacea* (Sw.) R. Br. ex Roem. & Schult., *Turpinia picardae* Urb., and *Vernonia saepium* Ekm. There is hope that the establishment of the Pic Macaya National Park will lead to the preservation of these interesting forests.

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